

The Montana Department of Environmental Quality (DEQ) has reviewed the *Investigation-Derived Waste Management Plan*, dated February 2, 2016 prepared by Roux Associates, Inc. (Roux) on behalf of the Columbia Falls Aluminum Company, LLC (CFAC) for investigation work at the Former Primary Aluminum Reduction Facility. DEQ has also reviewed comments submitted on the plan by the U.S. EPA and responses from Roux (dated April 19, 2016). Specific DEQ comments on the plan are as follows:

- 1) General Comment: Please define or reference the approved SAP/QAPP that meets EPA Region 8 QA/QC requirements, including personnel, that will provide the basis for protocols in this IDW Management Plan.
- 2) General Comment: Storage of uncharacterized waste in stockpiles onsite is not appropriate. Please clarify throughout the IDW Management Plan that only IDW that has been characterized as non-hazardous will be stored in stockpiles either inside or outside of the referenced warehouse.
- 3) Will the additional information provided in the Roux response to EPA comments be incorporated into the IDW Management Plan? Please clarify.
- 4) Page 7, Section 3.0: The investigation of the Anaconda Aluminum Reduction Facility in Columbia Falls, aka the Columbia Falls Aluminum Facility (CFAC) Site may encounter potential contaminants of concern (COCs) related to the generation of spent pot liners over the entire history of the plant. While DEQ understands that once the spent potliners were defined as a RCRA Listed Waste (K088) they were no longer disposed of on site, the IDW Management Plan seems to conclude that potential COCs associated with potliners are not listed waste. CFAC/Glencore/Roux need to present a detailed analysis of regulatory rules and legal precedents for EPA and DEQ to agree upon regarding disposal of any waste associated with the spent potliners.
- 5) Page 10, Section 5.2: Waste containers should be marked in multiple locations to support easy identification. Additionally, CFAC/Glencore/Roux should establish satellite accumulation areas for waste and manage the materials strictly until satisfactory analytical results are obtained. Clarify whether the warehouse specified in Roux's letter dated April 19, 2016 will be the general accumulation area, and where that warehouse is located.
- 6) Page 10, Section 5.2, 1<sup>st</sup> paragraph: Management of soil cuttings from the drilling process should be drummed, labeled and managed as hazardous waste until satisfactory analytical results are obtained to define the nature of the waste. Establishment of soil stockpiles of uncharacterized material is insufficient to limit the further spread of potential COCs. Additionally, a sampling frequency of one sample per every 100 cubic yards of drill cuttings is inadequate. Individual barrels or drums should be sampled during filling using a multipoint protocol. Once a drum of soil has been characterized as non-hazardous, those materials could be collected using the proposed 25-yard roll-off container protocol outlined by Roux in the letter of April 19, 2016. All waste classified as hazardous should remain drummed, be transported to an area onsite designated for hazardous waste storage only for eventual transport within 90 days to the designated hazardous waste facility.

- 7) Pages 10 - 12, Sections 5.2 and 5.3: Please verify that the proposed analytical methods present detection limits at least ½ EPAs RSL for the potential COC.
- 8) Pages 11 and 12, Section 5.3: Liquids storage should follow best management practices including use of liners, berms, and absorbents to minimize the further release and distribution of potential COCs.
- 9) Page 11, Section 5.3: 590 mg/kg is not appropriate for characterization (total cyanide), as this significantly exceeds the EPA Regional Risk Screening values and the leaching values. This value should be in the range of 12 mg/kg for cyanide and 4700 mg/kg for fluoride.
- 10) Page 12: DEQ will provide further clarification on the acceptable effluent limits for water disposal to the North-East Percolation pond.
- 11) Page 12, Section 5.3, last paragraph: Groundwater, from previously tested wells shown to yield acceptable water quality results, should be contained until shown that discharge onto the ground is appropriate. The approach based on past sampling results could be applied to upgradient monitoring wells only.
- 12) Page 13, Section 5.4, last sentence: Refer to comments above regarding handling, storage and sampling frequency of soils. A sampling frequency of one per every 100 cubic yards of sludge is not appropriate. Please revise to include drum storage, multipoint sampling of sludge and appropriate storage as determined by sample results.
- 13) Section 5.6, Page 13, 2<sup>nd</sup> paragraph: Revise to include the following at the end of the sentence: "...disposed of periodically as appropriate based on sample results."